Advanced Concept Technology Demonstration (ACTD)

Demonstrating Advanced Capabilities to the Joint Warfighter (Examples of FCB's at work)

National Defense Industrial Association (NDIA)

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ACTD Support to Joint Combatant Commanders

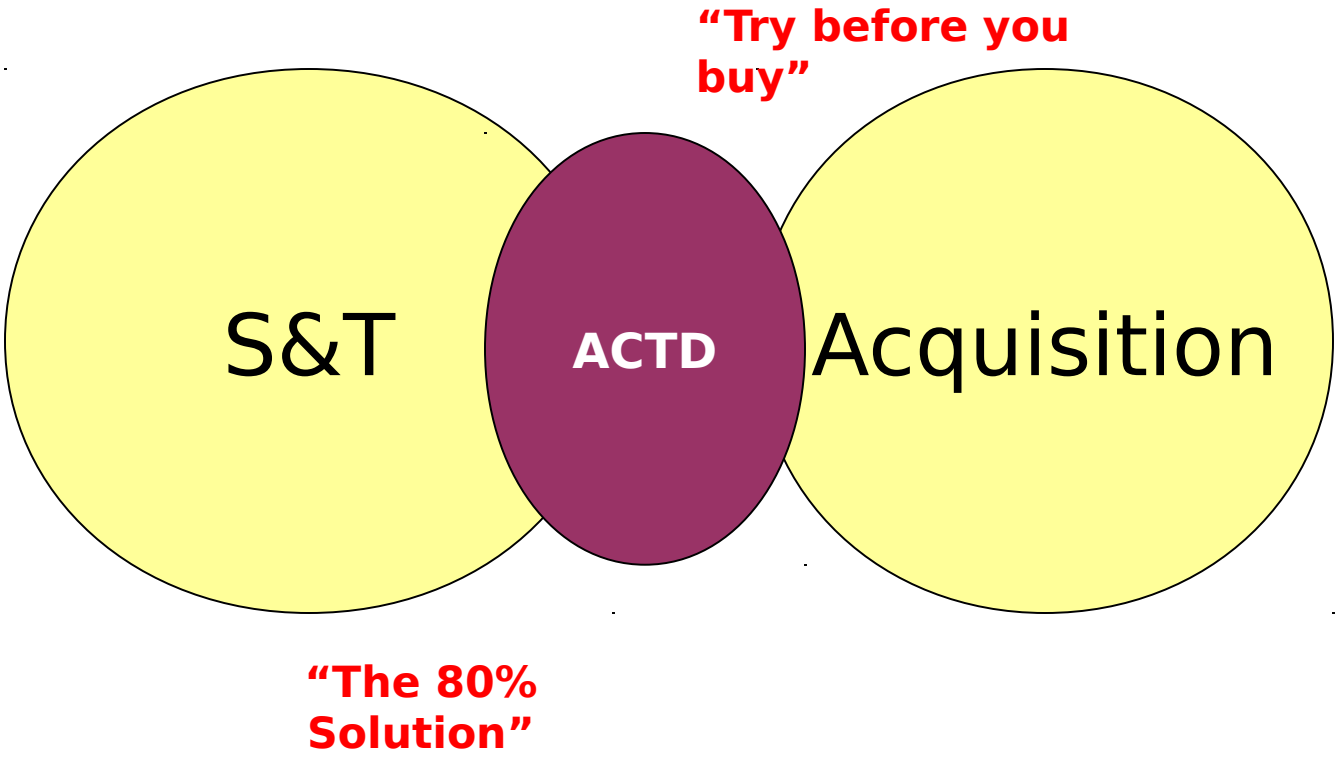
- **ACTDs rapidly field emergent mature technologies to joint warfighters**
  - **Balanced emphasis on tailoring technology with associated Tactics, Techniques, & Procedures (TTPs) to user needs**
- **Primary customers for ACTDs are joint Combatant Commanders**
  - **Coalition operation and transformational opportunities are also priorities**
- **ACTDs are not an acquisition/procurement activity**
  - **Charter is to minimize processes that delay rapid fielding of demonstrations**
  - **Overcoming resistance to transformational concepts**

Advance Concept Technology Demonstrations (ACTDs) Alignment

Advanced Systems and Concepts

Deliverables:

- Concept of Operations
- Military Utility Assessment
- Residual Capability – a leave behind



al of the ACTD is to Fill the Joint Gap—Providing Relevant tools to the Warfighter

ACTD FY-2005 Candidates
The selection process

- **Approximately 100 FY-2005 ACTD Candidates Received.** (October 2003 – January 2004)

- **"Breakfast Club" reviewed half of these during the Senior Service-CoCom-Defense Agency Review** (January 2004).

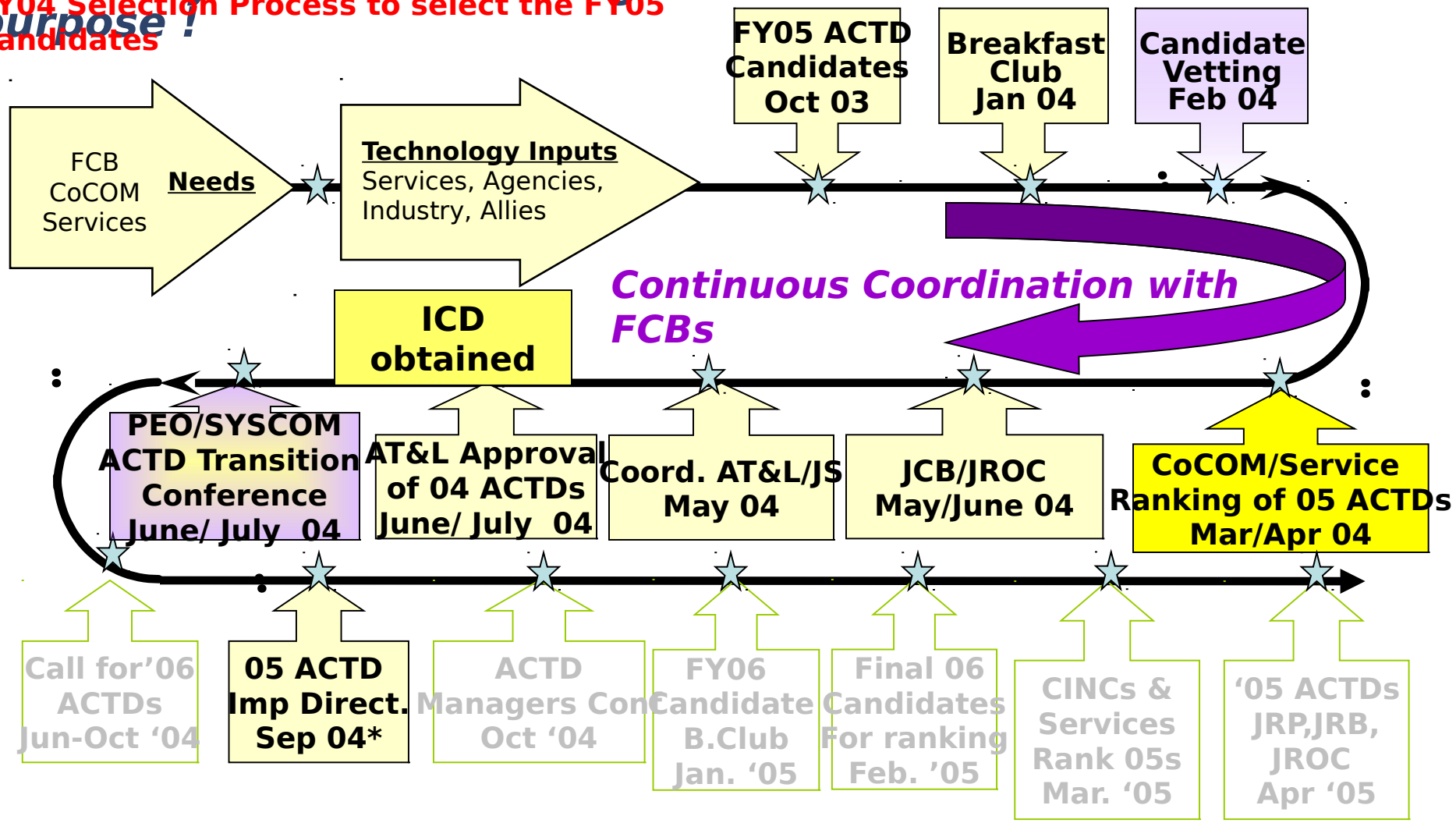
- **Military Service and JCS "socialization" process reduced selection to 24 Candidates for Rack/Stack Ranking (Voting).**
  - Results due end of April 2004
  - JROC prioritization & validation process May-June 2004

- **Funding:** FY 2005 President's Budget request is $214M (RDT&E-DW) . This includes **$45M** to partner with Services & Defense Agencies to "quick-start" the JROC validated Candidates.

FY-05 New Start resources not tied to a specific ACTD !

ACTD FY-05 ACTD Program Timeline

"Out of sync" with the Budget Process—on purpose !


FY04 Selection Process to select the FY05 Candidates
FY05 ACTD Candidates Oct 03
Breakfast Club Jan 04
Candidate Vetting Feb 04
FCB
CoCOM
Services
Needs
Technology Inputs
Services, Agencies, Industry, Allies
Continuous Coordination with FCBs
ICD obtained
PEO/SYSCOM ACTD Transition Conference June/ July 04
AT&L Approval of 04 ACTDs June/ July 04
Coord. AT&L/JS May 04
JCB/JROC May/June 04
CoCOM/Service Ranking of 05 ACTDs Mar/Apr 04
Call for'06 ACTDs Jun-Oct '04
05 ACTD Imp Direct. Sep 04*
ACTD Managers Con Oct '04
FY06 Candidate B.Club Jan. '05
Final 06 Candidates For ranking Feb. '05
CINCs & Services Rank 05s Mar. '05
'05 ACTDs JRP,JRB, JROC Apr '05

* Services will know JROC validated ACTDs in time for Service '06 POM Process

ACTD Objectives

Formal Success Objectives

- ✓ Rapid transition to Defense Program of Record
- ✓ Satisfaction of operational requirement with residuals
- ✓ Confirmation that technology/op concept appropriate for joint military use

  - or not!

Informal Success Objectives

- ✓ Develop operational concepts (DOTMLFP) employing proposed technologies
- ✓ Contribute technical elements into existing/new programs

Informal Failure Indicators

- Overlook technologies to solve known military problems
- Allow spiraling technologies/requirements to postpone transitions
- Pursuing low risk technologies to ensure successful demonstrations
- Focus on popular single-service ACTDs at expense of tough joint efforts

You Know It's a Good Year When. . .

In the middle of OIF, CENTCOM J3 sends you an email from Qatar saying "your stuff is really working good." (Referring to the Automated Deep Operations Coordination System (ADOCS) which came out of the Theater Precision Strike Operations ACTD).

The Battlegroup Commander commends the USS Gettysburg for a historic, successful completion of the SPARTAN USV deployment. In a personal note to DUSD (AS&C), he stated, "from my perspective, watching {SPARTAN} is like standing on the beach at Kitty Hawk a century ago." RADM Jim Stavridis

The Joint Movement Control Officer for OIF says, "Without the Theater Support Vessel, the ground war would not have started on time." Col (P) Mark Scheid

You realize that the Joint Explosive Ordnance Disposal (JEOD) ACTD that was started in FY 2002 has already been demonstrated in IRAQ, providing a previously unavailable technology that will save lives. JEOD provides a reach-back capability to subject matter experts so our EOD specialists in the field can obtain life-saving knowledge in real-time.

- ***Secure Web Based JEODNet will allow all EOD participants to document, track, and warn of Improvised Explosive Devices (IED) "the last tactical mile."***

FY 2004 New Start ACTDs By Functional Capabilities

Advanced Systems and Concepts

	Focused Logistics
FL	Future Tactical Truck (FTTS)
FL	Joint Precision Air Drop System (JPADS)
FL	Agile Rapid Global Combat Support (ARGS)
FL	Coalition Reception Staging & Onward Movement (CORSOM)
	Battlespace Awareness (includes Intelligence and Net Centric)
BA	Coalition Shared Intel Network Environment (COSINE)
BA	Multi-Sensor Aerospace/Ground Joint ISR Coalition (MAJIIC)
BA	PI (Classified)
	Command & Control
C2	Joint Unmanned Sys Common Control (J-USC2)
C2	Theater Effects Based Operations (TEBO)
	Force Application
FA	Advanced Tactical Targeting Technology (AT3)
FA	Psychological Operations (PSYOP) Global Reach
	Force Protection
FP	**Man-Portable Threat Warning System (MANPACK)**
FP	**Protected & Landing Take-Off (PLATO)**
FP	**FY-2003 Midyear Start: Counter Bomb/Counter Bomber (CB2)**

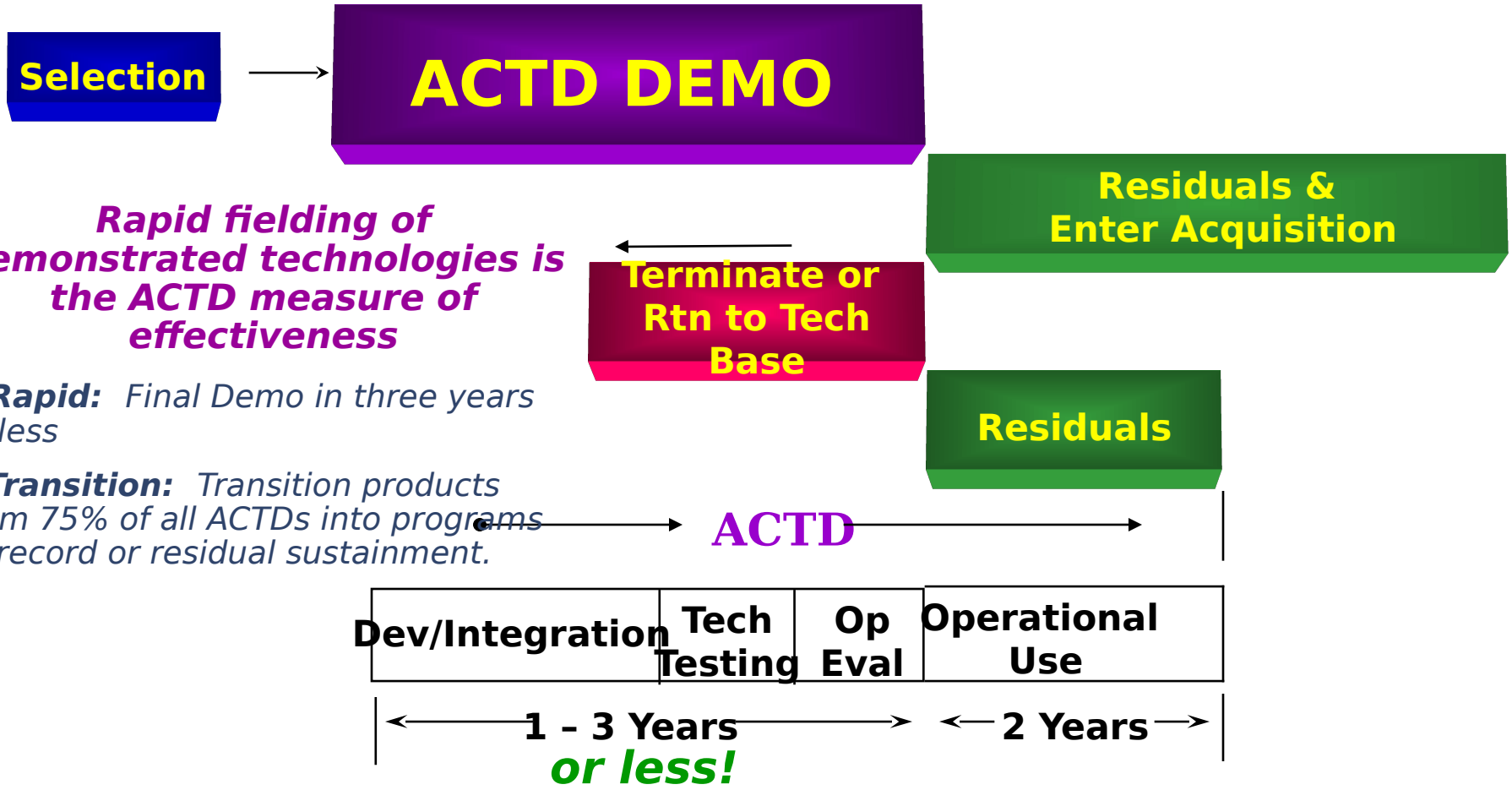
FY-2004 New Start ACTDs By Combatant Commander (CoCom)

CoCOM Customer	# ACTD	New Advanced Concept Technology Demonstration (ACTD)
PACOM	3	▪ Theater Effects Based Operations (TEBO) ▪ Future Tactical Truck System (FTTS) ▪ Agile Rapid Global Combat Support (ARGS)
JFCOM	3	▪ Joint Unmanned System Common Control (J-USC2) ▪ Joint Precision Air Drop System (JPADS) ▪ Multi-Sensor Aerospace/Ground Joint ISR Coalition (MAJIIC)
SOCOM	2	▪ Man Portable Threat Warning System (MANPACK) ▪ Psychological Operations (PSYOPS) Global Reach
STRATCOM	1	▪ PI (Classified)
NATO (SHAPE)	2	▪ Coalition Reception Staging & Onward Movement (CORSOM) ▪ Coalition Shared Intel Network Environment (COSINE)
CENTCOM	1	▪ Advanced Tactical Targeting Technology (AT3)
TRANSCOM	1	▪ Protected Landing & Take-Off (PLATO)

FY-2004 New Start ACTDs By Service/Component

Lead Service or Component	# ACTD	New Advanced Concept Technology Demonstration (ACTD)
Army	3	▪ Theater Effects Based Operations (TEBO) ▪ Joint Precision Air Drop System (JPADS) ▪ Future Tactical Truck System (FTTS)
Navy	2	▪ Joint Unmanned System Common Control (J-USC2) ▪ Agile Rapid Global Combat Support (ARGS)
Air Force	3	▪ Advanced Tactical Targeting Technology (AT3) ▪ Multi-Sensor Aerospace/Ground Joint ISR Coalition ▪ Protected Landing & Take-Off (PLATO)
SOCOM	2	▪ Man Portable Threat Warning System (MANPACK) ▪ Psychological Operations (PSYOPS) Global Reach
SHAPE	2	▪ Coalition Reception Staging & Onward Movement (CORSOM) ▪ Coalition Shared Intel Network Environment (COSINE)

ACTD Timeline: Just In Time Demonstration !



Rapid fielding of demonstrated technologies is the ACTD measure of effectiveness

- ***Rapid:*** *Final Demo in three years or less*
- ***Transition:*** *Transition products from 75% of all ACTDs into programs of record or residual sustainment.*

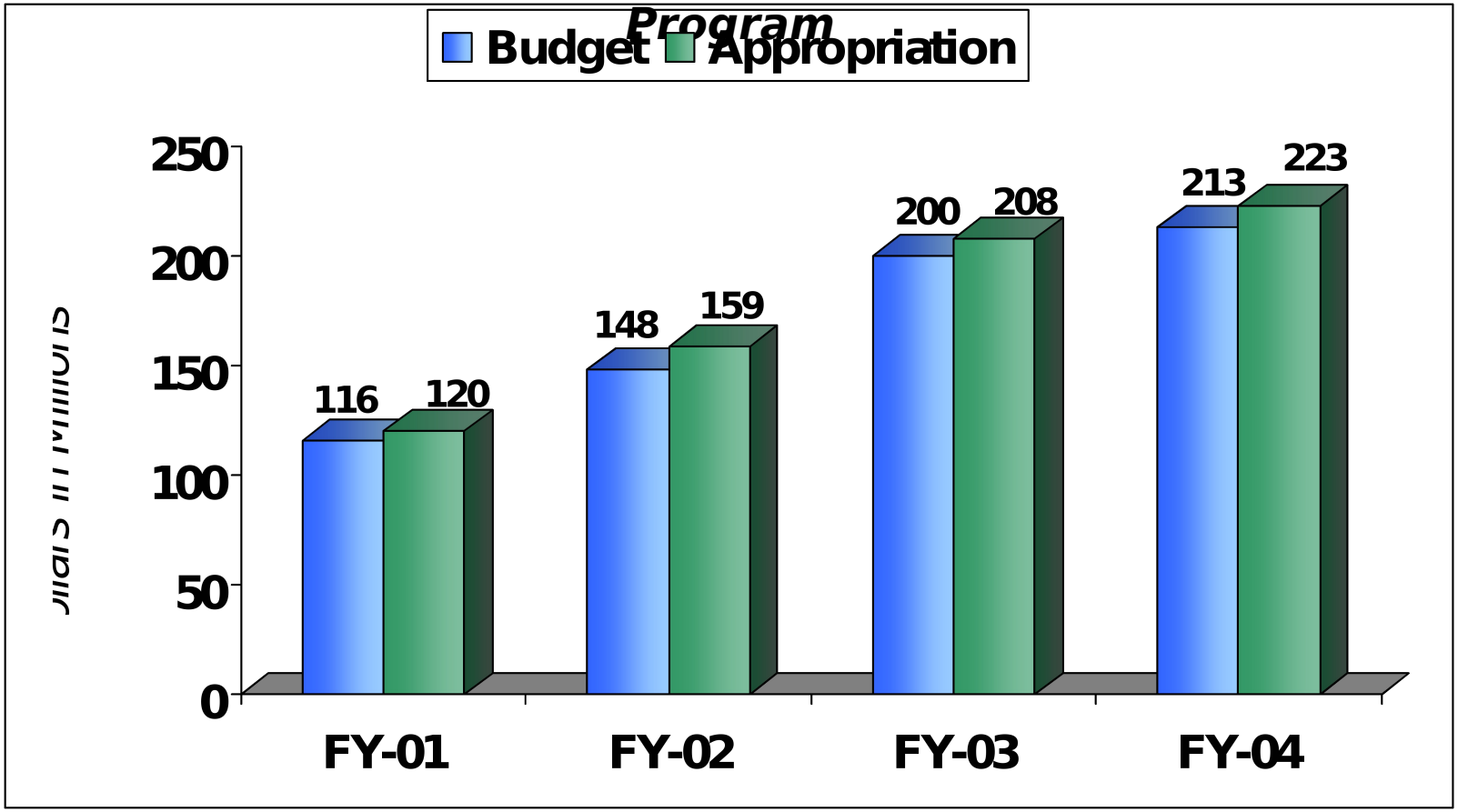
Emphasis placed on spiraling out confirmed discoveries as quickly as practicable

ACTD Roles in Tech Transition

- **Promote joint requirements lacking service "critical mass"**
- **Demonstrate military utility to system-centric Military communities**
- **Mitigate risk**
  - ***Try before buy…80% solution polished by demonstrations in the field***
- **Provide rapid prototypes of leap-ahead technologies**
  - ***Accelerate transition by testing technical solutions & concept***
- **Introduce warfighters to hands-on, mature technologies**
  - ***Spur concurrent development of CONOPS & system requirements***
  - ***Overcome institutional reluctance to embrace new concepts***

ACTD Funding Profile
Budget Vs. Appropriation

Strong Congressional Support for the ACTD Program



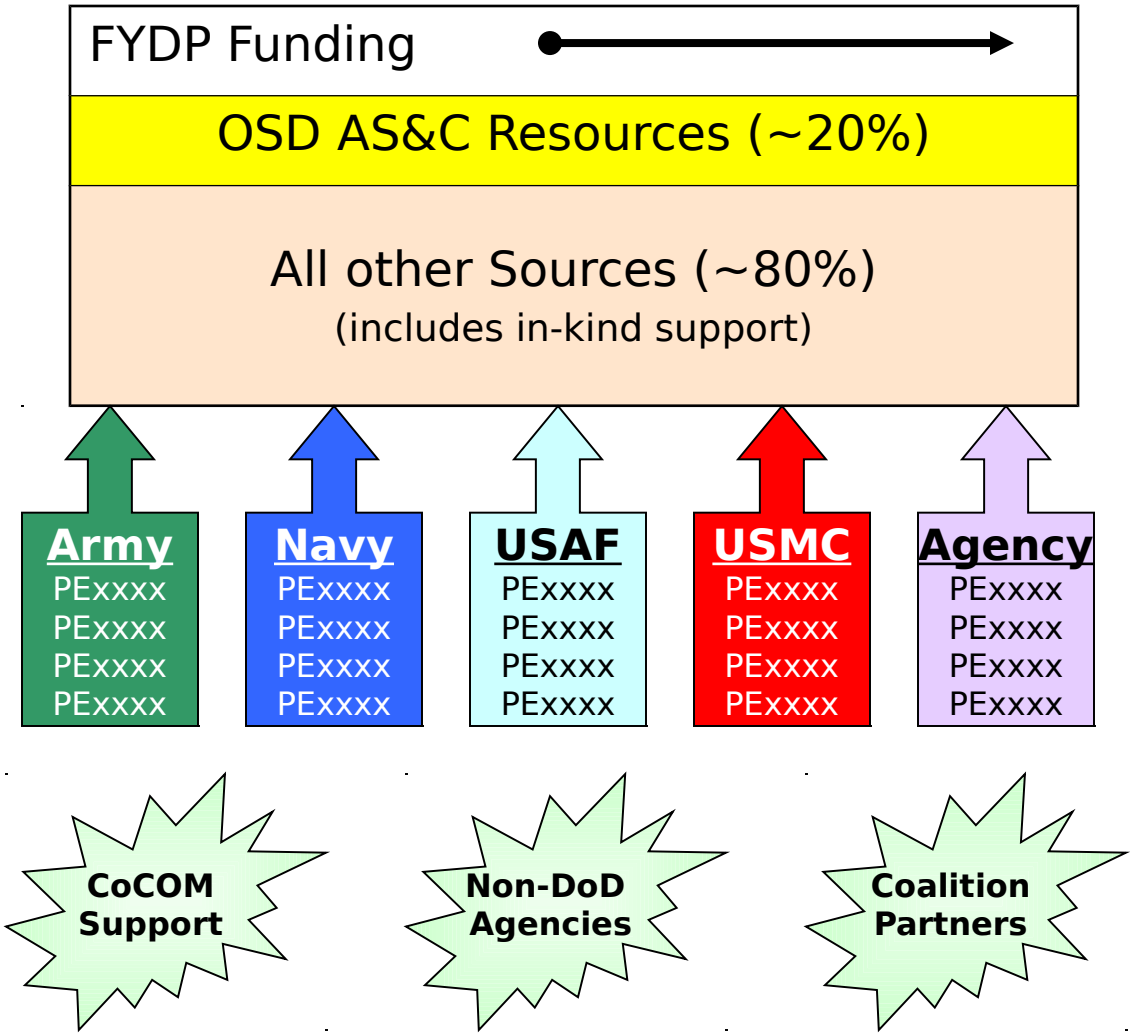
FY-04 All Defense Committees Support PresBud. SASC +$10M, HAC +$12.5M

FY 2004 Appropriation = $223M (+10.1M)

Current ACTD Funding Model
Partnership is the key

Description

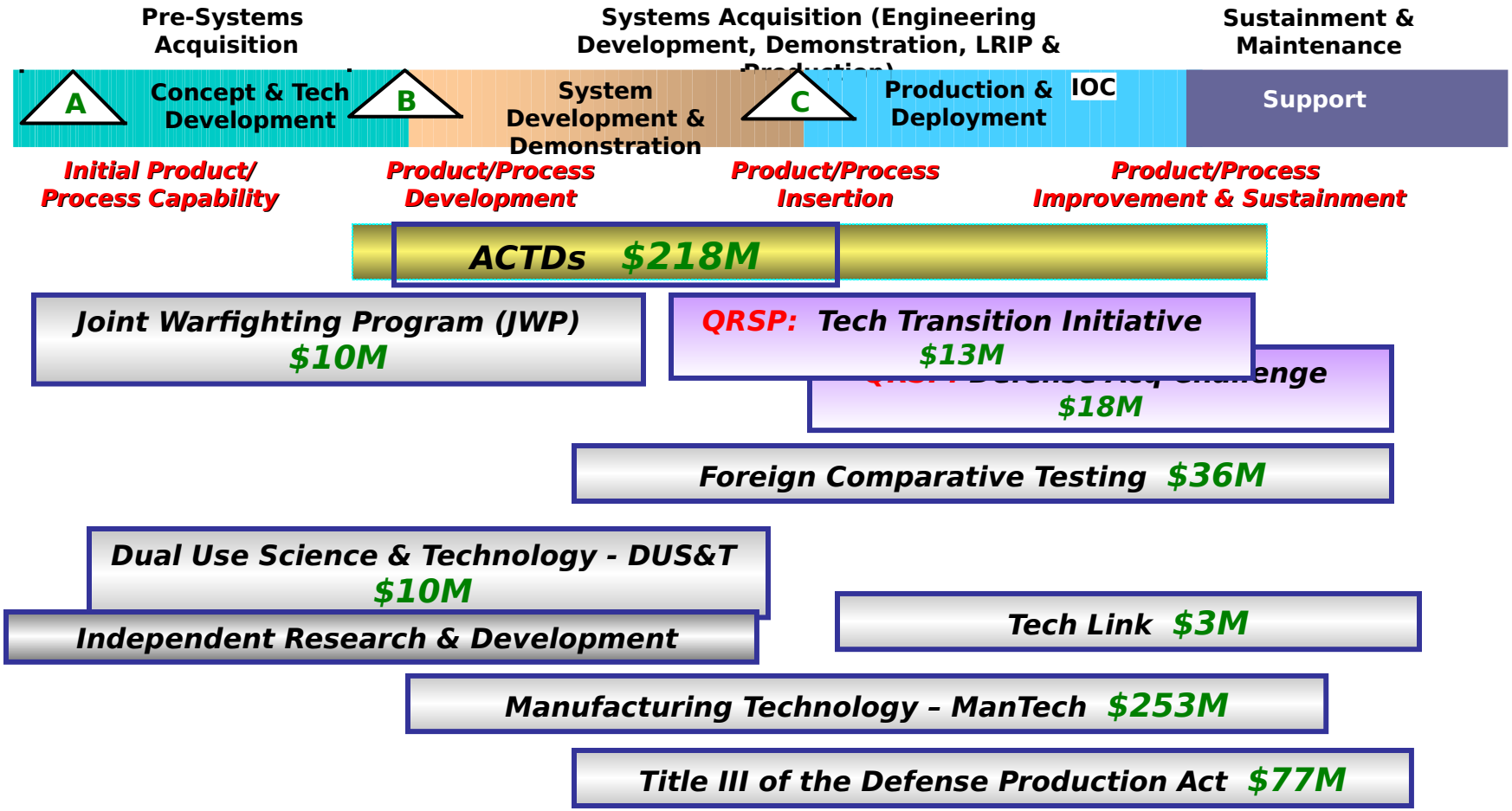
- AS&C resources provide an incentive for joint participation.
- Services and Defense Agencies provide ~ 80% of the resources (including in-kind).
- Dedicated in-kind support leverages existing capabilities, reducing the cost and promoting "buy-in." (critical for transition to acquisition).



AS&C Transition Programs - Including Flagship ACTD Program

FY 2004 Current Estimates

Advanced Systems and Concepts



All programs aim to place priority on investing in GWOT solutions identified by the Counter Terrorism Technology Task Force (CTTTF)

FY-2005 RDT&E Budget Request
Total: $68.9 Billion

Advanced Systems and Concepts

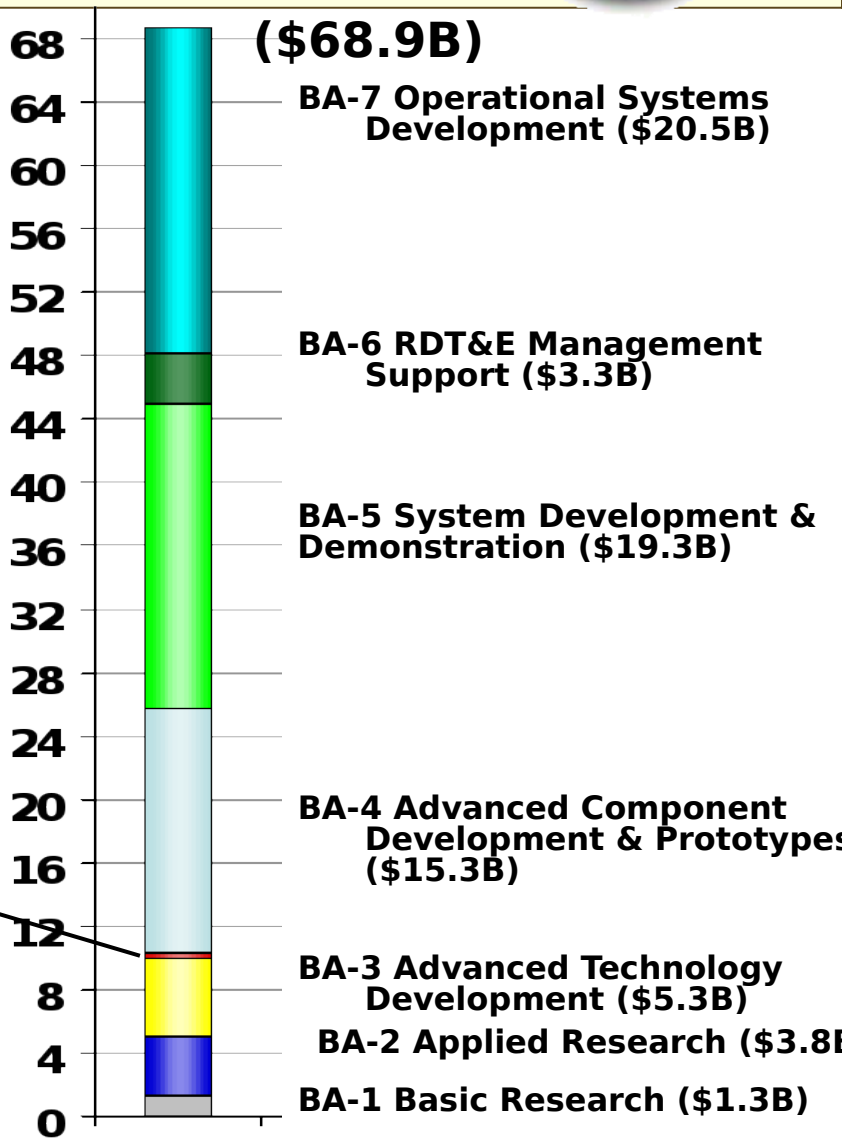
OSD Defense Wide Transition Programs Highly Leveraged across Service and Agency Budgets.
Less than half a percent of RDT&E supports these programs.

Development (BA4 + BA5 = $34.5B)

Defense Wide DUSD (AS&C) Support Totals $335M

Technology Base (BA1 + BA2 = $5.7B)

Science and Technology (BA1+BA2+BA3 = $10.5B)



Actively Seeking Better Ways to Transition Technology and Concepts to Warfighters

Advanced Systems and Concepts

Tech Transition – especially for joint capabilities – is a contact sport

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